

APPENDIX D: CONCERNS AND ISSUES

While performing any System Engineering process, the specialist may encounter issues and concerns that surface. These issues and concerns may take many forms, but they usually consist of potential risks to the program. Risk Management (Section 4.10) addresses this topic and is consulted when problems arise. The issues and concerns are collected in a form to use during the Risk Management process to determine if they are a threat to program success. At a minimum, the following information concerning each issue or concern shall be derived or collected:

- Title of issue or concern
- Problem statement
- Causes
- Potential effect on the program
- Who is identifying the issue or concern
- Contact information, such as telephone number or e-mail address

Problem Statements

If a problem arises, a problem statement of one to two sentences shall be generated that succinctly identifies the problem and answers the following questions:

- What is the problem?
- What is the scope of the problem?

The following tips may be used as a guide to develop a problem statement:

- Avoid using jargon
- Focus on the specific problem or the issue; problems are characterized by a need, a shortfall in capability, or a threat
- Avoid confusing symptoms or causes with the problem. Focusing on symptoms or causes diverts resources from solving the real or entire issue
- When possible, use data to support the existence of the problem or issue
- Make a connection between the issue and the organization
- Carefully read and analyze the problem statement. Discuss the problem within a peer group to enhance the overall understanding of the problem. A peer group effort is more effective in identifying the key factors in this type of problem-solving situation. The peer group actively searches for the information necessary to solve the problem
- List what is known. Start a list to record everything known about the situation. Begin with the information contained in the problem statement and add the knowledge that the peer group brings
- Record information that people think that they know but are unsure
- List what is needed. Prepare a list of questions that need to be answered to solve the problem. Record them under a second list: "What do we need to know?" Several types of questions may be appropriate. Some may address concepts or principles that need to

be learned in order to address the situation. Other questions may be in the form of requests for more information. These questions guide future searches for information

- List possible actions, such as recommendations, solutions, or hypotheses under the heading "What should be done?"